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## ABSTRACT

In 1981-82, the Health Education Paraprofessionals program of the New York City Public Schools Division of Special Education provided supplementary instruction in hygiene and self care, and outreach services to 335 severely handicapped students, aged 5 to 21. Of the program participants, 292 received training in toilet habits and self care, and 43, who were identified as hepatitis-B carriers, were instructed in proper hygiene and adaptive social behaviors. Training was provided by 85 trained paraprofessionals, who employed different instructional approaches. Progress reports (as recorded in the VORT Behavioral Characteristics Progression and toileting schedules, anecdotal reports, and medical information) indicated that: (1) 94 percent of the participants mastered at least one new skill, and about 50 percent mastered seven or more skills; (2) more students demonstrated mastery of those skills that the program emphasized (thus, 75 percent mastered one or more toileting skills; 50 percent mastered grooming skills; 25 percent mastered undressing skills; and fewer than 10 percent were taught and mastered skills in oral hygiene, adaptive behaviors, and interpersonal relations); and (3) the amount and rate of skills mastery and program attendance varied among students with different types of handicaps. It was recommended that more staff training be provided in order to improve program services. (MJL)

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## O.E.E. EVALUATION REPORT

February, 1983

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E.H.A., Part B  
SUPPLEMENTARY SERVICES  
FOR HANDICAPPED STUDENTS  
HEALTH EDUCATION  
PARAPROFESSIONALS PROGRAM

1981-82

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A SUMMARY OF THE EVALUATION  
FOR THE 1981-82  
EDUCATION FOR ALL HANDICAPPED CHILDREN ACT, PART B  
(E.H.A., PART B)  
HEALTH EDUCATION PARAPROFESSIONALS PROGRAM

The Health Education Paraprofessionals program of the Division of Special Education (D.S.E.) provided supplementary self-care and health instruction to severely-handicapped students in the New York City public schools. In all, 335 students were served; 292 received toilet-training and 43 who were identified as hepatitis-B carriers were instructed in proper hygiene and adaptive social behaviors.

About 94 percent of the students showed growth as indicated by mastery on selected strands of the VORT Behavioral Characteristics Progression (B.C.P.). The average rate of mastery was approximately one new skill for every 20 days of participation.

Reports from previous evaluations recommended that the program insure that adequate in-service training be provided early in the school year if many staff are new to special education. In 1981-82 workshops were held for all staff but not until rather late in the year. The 1980-81 evaluation reported staff complaints about delays and shortages in essential supplies; apparently this problem was effectively resolved in the 1981-82 cycle.

It was recommended that the program continue its efforts to improve in-service staff training.

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## I. INTRODUCTION

The Health Education Paraprofessionals program of the Division of Special Education (D.S.E.) of the New York City Public Schools was one of nine supplementary programs funded by the Education for All Handicapped Children Act, Part B (E.H.A., Part B) during 1981-82. As in past cycles the program provided self-care and health instruction and outreach services to severely disabled students, ages five to 21.

During the 1981-82 cycle, the program funded 99 educational paraprofessionals, in 1980-81 it funded 101, and in 1979-80 it funded 31 staff. Results of previous evaluations indicated that the program operated satisfactorily. Recommendations for improvement stressed the importance of providing adequate in-service training early in the school year to assist the many staff who have been new to special education and, in 1980-81, the need for insuring that adequate supplies are available at all sites.

Data for the evaluation of the 1981-82 program cycle, which were collected and analyzed by the Office of Educational Evaluation (O.E.E.), included records of pupil progress, observations and interviews with program staff, and program records of parent participation and staff training. Findings will be presented on program implementation, results from pupil achievement records, and conclusions and recommendations.

## II. EVALUATION OF PROGRAM IMPLEMENTATION

### PROGRAM DESCRIPTION

The Health Education Paraprofessionals program provided instruction in self-care and hygiene and outreach services to 335 students, ages five to 21, in self-contained special education classes in 55 elementary and secondary schools throughout New York City. Students attended one of the following D.S.E. programs for their basic special education: Occupational Training Centers (O.T.C.); Centers for Multiply-Handicapped Children (C.M.H.C.); Track IV; Autistic; Teacher-Moms; Adult Skills Training Centers (A.S.T.C.); Doubly-Handicapped; Trainable Mentally Retarded (T.M.R.); and Health Conservation. Program staff were 85 toilet-trainer paraprofessionals who trained 292 students for greater self-sufficiency in toileting and self-care and 13 hepatitis paraprofessionals who instructed 43 students identified as hepatitis-B carriers in appropriate personal hygiene. Each paraprofessional was responsible for two or three students and worked under the direct supervision of their classroom teachers.

### EVALUATION METHODOLOGY

Data on program implementation were collected by an O.E.E. consultant who visited 17 randomly-selected program sites where 107, or 32 percent, of the students were enrolled. The consultant observed instruction, examined pupil records, and interviewed 23 toilet-trainer paraprofessionals, five hepatitis paraprofessionals, 28 classroom teachers, 12 unit coordinators, and five principals.

## FINDINGS

### Instructional Activities, Supplies, Records, and Pupil Assessment

Both toilet-trainer and hepatitis paraprofessionals typically worked individually with students. Toilet-trainers maintained toileting schedules for each child, took students to the bathroom, and taught appropriate skills including toileting, grooming, dressing, and undressing. Hepatitis paraprofessionals also worked with a few students each, monitoring their behavior throughout the school day; instruction stressed grooming, nasal and oral hygiene, impulse control, interpersonal relations, and responsible behaviors.

Instructional approaches varied substantially among the sites visited. At two Track IV sites the paraprofessionals, with the help of the classroom teachers, used a highly structured, behavior modification, task-analysis approach. At all sites, the paraprofessionals and the teachers with whom they worked felt the instruction was effective and almost all the teachers interviewed reported that their students had benefited from the program. Among the gains mentioned were improved behavior and self-image, more consistent toileting routines, fewer accidents, and better communication skills. Some teachers added that as a result of the paraprofessionals' assistance they were better able to provide effective service to other students in their class. Both teachers and paraprofessionals described their working relationship as "cooperative" with "good communication."

All paraprofessionals maintained records of their work with individual students; for the most part these were reports of progress on selected strands of the Santa Cruz VORT Behavioral Characteristics Progression



(B.C.P.) and toileting schedules. Some student folders also contained anecdotal material and medical information. All paraprofessionals maintained daily logs recording their activities.

Most of the 28 paraprofessionals interviewed began work in November and half received training in December on the use of B.C.P. strands to assess pupil progress. With the exception of some staff who worked with the most severely impaired students, paraprofessionals interviewed found the B.C.P. useful. The Track IV In-Depth Analysis instrument was suggested as more appropriate for low functioning students because it divides subskills into finer units.

Supplies were described as adequate and appropriate by most staff interviewed.

#### Orientation, Supervision, and In-service Training

Staff training was important for program success because, according to the interviews, most paraprofessionals did not have any prior experience or training in special education. A half-day orientation was held in December which covered program goals and introduced the B.C.P. materials and the program coordinator visited all sites to give personalized in-service training as needed. On-going supervision was provided by the classroom teachers.

In-service training was organized according to the population served. Sixteen paraprofessionals working with Track IV students attended a series of three workshops in March and April in which they discussed problems and explored alternative approaches to toilet training and behavior management. According to the interviews, a valuable outcome of the workshops was improved attitude of the paraprofessionals toward their role.

Hepatitis paraprofessionals attended a workshop in May and eighteen paraprofessionals working with autistic students attended one in late April; both were considered useful and informative but participants stated it would have been more helpful earlier in the year.

#### Parent Contact

About half of the paraprofessionals reported that they maintained contact with the students' parents in order to reinforce the training. However, most were unsure of the extent to which the training was actually followed in the home.

### III. EVALUATION OF PUPIL ACHIEVEMENT

#### EVALUATION METHODOLOGY

Pupil progress was assessed on B.C.P. strands measuring growth in the following areas: toileting, grooming, dressing, undressing, oral hygiene, nasal hygiene, adaptive behaviors, impulse control, interpersonal relations, and responsible behaviors. Pupil achievement was recorded on O.E.E.-developed data retrieval forms.

#### FINDINGS

##### Pupil Population, Services, and Attendance

Data retrieval forms were returned for 335 students, 292, or 87 percent, of whom received toilet training. Hepatitis paraprofessionals taught hygiene to 29 students (9 percent) and 14 students (4 percent) received both kinds of training. Complete data were returned for all but 11 students.

Students' ages ranged from five to 21 years; median age was about ten. Disability conditions were severe to profound: over one-fourth of the students, 96 or 30 percent, were in Track IV programs for the severely or profoundly retarded; 74 or 22 percent were classified as multiply-handicapped; 60 or 18 percent were classified as autistic; 63 or 19 percent had other emotional disabilities; 30 or 9 percent were in classes for the trainable mentally retarded; and nine students, or 3 percent, were physically handicapped. Handicapping condition was not reported for three students.

Program participation was quite variable. Approximately one-third of the students, 111 or 35 percent, received fewer than 60 days of service; 140 or 43 percent had from 60 to 120 days; and the remainder of those for whom attendance data were reported, i.e., 73 or 22 percent, had over 120 days of service. These figures reflect, in part, the variability among sites in dates of implementation. Average attendance was 84.3 days and the average percent attendance was 83.5 percent (s.d. = 16 percent).

#### Pupil Achievement

To determine the amount of achievement by program participants, mastery scores were computed for each student on selected strands of the B.C.P. A frequency distribution, which is presented in Table 1, indicated that 94 percent of participating students mastered at least one new skill and about half mastered seven or more.

Mastery of new skills was concentrated in a few areas, reflecting the focus of the program. Nearly three-fourths of the students mastered one or more toileting skills; about half mastered grooming or dressing skills; and one-fourth mastered undressing skills. Fewer than ten percent were taught and mastered oral or nasal hygiene skills and only two percent were instructed and showed mastery in adaptive behaviors, impulse control, interpersonal relations, or responsible behaviors. (These data are presented in Table 2.)

Analysis of these data by handicapping condition indicated that the amount and rate of mastery and attendance varied considerably among disability groups. (See Table 3.) The average number of skills mastered ranged from 5.1 for the multiply handicapped to 8.1 for the emotionally handicapped and average

TABLE 1  
Frequency Distribution of Mastery  
on Selected B.C.P. Strands

Number of Skills Mastered	Number of Students	Percent of Population	Cumulative Percent
17 or more	20	6.2	6.2
12 to 16	23	7.1	13.3
11	18	5.6	18.9
10	24	7.4	26.3
9	22	6.8	33.1
8	15	4.6	37.7
7	30	9.3	47.0
6	18	5.6	52.6
5	27	8.3	60.9
4	21	6.4	67.3
3	35	10.8	78.1
2	24	7.4	85.5
1	28	8.6	94.1
0	19	5.9	100.0
	<u>324</u>		

.Almost all students showed gains on the B.C.P.; nearly half mastered seven or more new skills.

TABLE 2

Numbers of Students Showing Mastery of  
One or More Skills in Specific B.C.P. Strands  
(N=324)

Strand	Number of Students Demonstrating Mastery	(Percent)
5. Toileting	232	(71.6)
6. Grooming	179	(55.2)
7. Dressing	144	(44.4)
8. Undressing	79	(24.4)
9. Oral Hygiene	16	( 4.9)
10. Nasal Hygiene	25	( 7.7)
23. Adaptive Behaviors	6	( 1.9)
24. Impulse Control	5	( 1.5)
25. Interpersonal Relations	6	( 1.9)
26. Responsible Behaviors	7	( 2.2)

- Instruction was largely given in the areas of toileting, grooming, and dressing.

TABLE 3

Mean Number of B.C.P. Skills Mastered,  
Attendance, and Rate of Mastery,  
by Handicapping Condition

Handicapping Condition (N)	Total Number of Skills	Days in Attendance	Days to Master Each Skill
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
Trainable Mentally Retarded (29)	7.0 (5.9)	123.1 (35.8)	29.5 (26.5)
Multiply Handicapped (70)	5.1 (5.0)	84.0 (34.1)	25.5 (21.3)
Track IV (92)	7.3 (4.5)	82.7 (45.6)	16.7 (18.7)
Autistic (60)	5.8 (4.1)	83.1 (49.1)	23.4 (32.0)
Emotionally Handicapped (63)	8.1 (4.5)	70.4 (35.2)	13.3 (13.3)
Physically Handicapped (9)	5.2 (3.5)	79.8 (26.7)	22.2 (16.3)
Total <sup>a</sup> (324)	6.6 (4.8)	84.3 (42.6)	20.3 (22.7)

<sup>a</sup>Because of missing or incorrect codes the total exceeds the sum for handicapping categories.

.Rate of mastery varied substantially among handicapping groups ranging from an average of about 13 days of attendance to about 30 days of attendance to master each new skill.

attendance ranged from 70.4 days for emotionally handicapped to 123.1 days for trainable mentally retarded students. The average amount of participation required for mastery of each skill by the various groups were as follows: emotionally handicapped, 13.3 days; Track IV, 16.7 days; physically handicapped, 22.2 days; autistic, 23.4 days; multiply handicapped, 25.5 days; and trainable mentally retarded, 29.5 days. The average rate of growth was one new skill for every 20 days of attendance.

With few exceptions the distributions of instruction and mastery across B.C.P. strands were similar for the different disability groups. For the four highest incidence groups, toileting skills were taught most frequently, followed by grooming, dressing, and undressing. (See Table 4.)



TABLE 4

Number of Students Showing Mastery  
in Selected B.C.P. Strands  
by Handicapping Condition

Handicapping Condition (N)	Number of Students Showing Mastery, by Strand			
	<u>Toileting</u>	<u>Grooming</u>	<u>Dressing</u>	<u>Undressing</u>
	N (Percent)	N (Percent)	N (Percent)	N (Percent)
Trainable Mentally Retarded (29)	11 (37.9)	13 (44.8)	15 (51.7)	10 (34.5)
Multiply Handicapped (70)	41 (58.6)	31 (44.3)	20 (28.6)	12 (17.1)
Track IV (92)	69 (75.0)	51 (55.4)	53 (57.6)	33 (35.9)
Autistic (60)	50 (83.3)	37 (61.7)	31 (51.7)	15 (25.0)
Emotionally Handicapped (63)	55 (87.3)	39 (61.9)	14 (22.2)	9 (14.3)
Physically Handicapped (9)	4 (44.4)	5 (55.5)	1 (11.1)	0 (0.0)
Total <sup>a</sup> (324)	232 (71.6)	179 (55.2)	144 (44.4)	79 (24.4)

<sup>a</sup>Because of an incorrect code the total exceeds the sum for handicapping categories.

In the four largest disability groups, toileting skills were taught most frequently, followed by grooming, dressing, and undressing skills.

#### IV. CONCLUSIONS AND RECOMMENDATIONS

In the 1981-82 cycle, the Health Education Paraprofessionals program taught self-care and hygiene skills to 335 severely-to-profoundly handicapped students. Almost all (94 percent) of participating students mastered one or more new skills, as measured on selected strands of the B.C.P., and half mastered five or more. Instruction was primarily given in toileting, grooming, and dressing.

Observation and interview data revealed that the program was fully staffed by November. Instruction was conducted individually or, occasionally, in groups of two or three students; classroom teachers provided day-to-day supervision of the paraprofessionals. At two sites visited, the classroom teachers directed the health education paraprofessionals in the use of behavior modification and task-analysis techniques. In-service workshops, organized around the handicapping conditions of participating students, were held in March, April and, in one case, May.

The following recommendations are offered for the further improvement of this needed supplementary service:

- the program should continue efforts to provide in-service workshops early in the year, especially if many staff have no previous experience or training in special education;
- classroom teachers should be encouraged to advise the health education paraprofessionals in effective training techniques.